



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,786	03/29/2004	Michael E. Miller	85672BAJA	4217

7590 09/22/2005

Paul A. Leipold
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

PHILOGENE, HAISSA

ART UNIT	PAPER NUMBER
----------	--------------

2828

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,786

Applicant(s)

MILLER ET AL.

Examiner

Haissa Philogene

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 5, 10 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/11/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6, 9, 11-14 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Siwinski, Pub. No. 2002/0186214.

Siwinski discloses in Figs. 2 and 3 an OLED display system and a driving method thereof, comprising: a) an OLED display (30) including an array of light emitting pixels representing by quad pattern (20), each pixel (20) having a plurality of OLEDs (12, 14, 16) for emitting different colors of light specifying a gamut (shown as dotted line) and including at least one additional OLED (18) within the gamut defined by the other OLEDs and wherein one of the OLEDs (18) being white has a power efficiency or lifetime different from the power efficiency or lifetime of at least one of the other OLEDs (12-16) being red, blue and green; b) a control signal generated by controller (38); and c) a display driver (44) for receiving a color display signal representing a relative luminance and color to be produced for each pixel of the display and generating a converted color display signal for driving the OLEDs in the display at the relative luminance and color via a digital image processor (42), wherein the display driver (44) is

Art Unit: 2828

responsive to the control signal from the controller (38) for controlling the in-gamut mixing ratio of the OLEDs received from the digital image processing circuit (42) (see also page 3, claim 8) to reduce power consumption or increase lifetime of at least one of the OLEDs by switching to a low power monochrome mode (see page 1, section [0014] to page 2, [0018]); wherein the control signal provided by the controller (38) is dependent upon the image content of the color display signal provided through at least a keypad (40) by a user, and wherein the display driver (44) controls the in-gamut mixing ratio of the converted color display signal provided by the digital image processor (42) in proportion to the image content of the color display signal; and wherein the control signal provided by the controller (38) is also dependent upon the age of the OLED display reflected by the state of charge of the batteries in the power supply (46) via power supply monitor (48), and wherein the display driver (44) controls the in-gamut mixing ratio of the converted color display signal provided by the digital image processor (42) in proportion to the age of the OLED display via the controller; a user interface control or keypad (40) capable of allowing a user to select a tradeoff between power usage and in-gamut mixing ratio of the OLED display by switching from a full power, full color mode to a low power monochrome mode; wherein the OLED display includes OLEDs (12, 14, 16, 18) having materials that emit different colors of light including at least one of the group including red, green, blue, and white (see page 1, sections [0011] and [0014]; wherein the in-gamut OLED emits white light (see page 2, Col.1, lines 8-13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski in view of Applicant's admitted prior art (see Specification, page 1, lines 29-30).

Siwinski discloses the claimed invention substantially as explained above except for white OLEDs that are overlaid with color filters which includes at least one of the group including red, green and blue. Applicant's admitted prior art (see Specification, page 1, lines 29-30) discloses the well-known OLED display using an array of white-emitting OLEDs and placing color filters over the OLEDs to achieve red, green and blue light emitting elements. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the white OLEDs as taught by Applicant's admitted prior art into the Siwinski type system, because it would allow avoiding the use of different color types of OLEDs which are by definition less efficient than the white OLEDs to produce a colored light.

Allowable Subject Matter

Claims 5, 10 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose the following recited limitations: "the display driver (44) limits the in-gamut mixing ratio of the OLED display within a range having some minimum and/or maximum value" (claims 5 and 15); " the display driver further changes the in-gamut mixing ratio as a function of the brightness of the OLED display" (claim 10).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cok et al., Patent No. 6,320,325 ; Arnold et al., Patent No. 6,747,618 ; Salam, Patent No. 6,329,758.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 8:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2828

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hp

Haissa Philogene
Primary Examiner
A.U. 2828